

# Greenridge Utilities, Inc.

System I.D. 0120011



## Annual Water Quality Report 2017

### Message from Steve Lubertozi, President

Dear Greenridge Utilities, Inc. Customers,

I am pleased to share your Annual Water Quality Report for 2017. This report is designed to inform you of the quality of water we delivered to you over the past year. As the local President of your community water utility, we fully appreciate our role in the local community. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources.

Our team is committed to providing safe, reliable and cost effective service to our customers. All of our employees share in our commitment to act with integrity, protect the environment, and enhance the local community.

**We are proud to share this report which is based on water quality testing through December 2017. We continually strive to supply water that meets or exceeds all federal and state water quality regulations.**

Our dedicated local team of water quality experts is working in the community everyday ensuring that you, our customer, are our top priority and that we are providing the highest quality service - now and in the years to come.

Best regards,

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

### The Safe Drinking Water Act

**The Safe Drinking Water Act** was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

### Source of Drinking Water

Our wells draw from the Port Deposit Gneiss aquifer in Harford County. An aquifer is a geological formation that contains water. We also purchase water from the Harford County Water System. Harford County draws water from several sources. The Perryman Water Plant draws water from the Potomac group aquifer. The Abingdon Water Plant draws surface water from the Susquehanna River or the Loch Raven Reservoir and the County's Havre de Grace Water Plant draws water from the Susquehanna River.

### Source Water Assessment (SWA)

The Maryland Department of the Environment has completed a SWA for the water system.

The source for Greenridge Utilities water supply is an unconfined, Piedmont aquifer known as the Port Deposit Gneiss. The SWA area for the Greenridge Utilities wells were delineated using U.S. EPA approved methods specifically designed for each source. Potential sources of contamination within the assessment area were identified based on site visits, database reviews, and land use maps. Well information and water quality data were also reviewed. Figures showing land use and potential contaminant sources within the SWA area and an aerial photograph of the well locations are enclosed in the full (SWA) report.

The susceptibility analysis of the Greenridge Utilities water supply was based on the review of the water quality data, potential sources of contamination, aquifer characteristics, and well integrity. It was determined that the Greenridge Utilities water supply is susceptible to contamination by nitrates, and radionuclides, but is not susceptible to volatile organic compounds (VOCs), synthetic organic compounds (SOCs), microbiological contaminants, and other regulated inorganic compounds (IOCs).

If you would like to review the report or have any other questions or concerns regarding it please call our office at (844) 310-6660.

**Visit us online at [www.uiwater.com/maryland](http://www.uiwater.com/maryland) to view the Water Quality Reports. Also visit our website for e-billing sign up, water conservation tips and other educational material.**

**We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.**

## EPA Wants You To Know

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

**Contaminants that may be present in source water include:**

- A. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B. **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- C. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D. **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- E. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

## What measures are in place to ensure water is safe to drink?

To ensure that tap water is safe to drink, U.S. EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

## Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

## Information Concerning Lead in Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

Greenridge Utilities, Inc. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at [www.nsf.org](http://www.nsf.org) to learn more about lead-containing plumbing fixtures.

## If You Have Questions Or Want To Get Involved

Greenridge Utilities, Inc. does not currently hold regular public meetings. Should the Utility hold a public meeting, you will be notified through the mail or public notice. Please call customer service at (844) 310-6660 if you have any questions. You may also call Talad Said or Allen Webb at (410) 638-3939 for questions on the Harford County test results or visit [www.harfordcountymd.gov/782/Water-Sewer](http://www.harfordcountymd.gov/782/Water-Sewer) [choose Water Quality Report] for additional information.

## Drain Disposal Information

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

## Prescription Medication and Hazardous Waste

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: [www.epa.gov/hw/household-hazardous-waste-hhw](http://www.epa.gov/hw/household-hazardous-waste-hhw).



## Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

- ⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.
- ⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!
- ⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

## Key to Water Quality Terms

In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

- **Action level (AL)** - Action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **Compliance Level (CL)** - Is the value used to determine compliance with MCL or TT. The CL for contaminants can be a maximum test value, an average, or meeting a condition for a certain percentage of the time.
- **Intestinal Parasites** - Microorganisms like Cryptosporidium and Giardia lamblia can cause gastrointestinal illness (e.g., diarrhea, vomiting, cramps). In 2004, two samples of untreated river water showed the presence of Giardia lamblia and Cryptosporidium. None were found in the treated drinking water.
- **Maximum contaminant level (MCL)** - The maximum contaminant level is the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
- **Maximum contaminant level goal (MCLG)** - The "goal" is the level of a contaminant in drinking water below which there is no known or expected health risk. MCLG's allow for a margin of safety.
- **Maximum Residual Disinfectant Level (MRDL)**: The highest

level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

- **Maximum Residual Disinfectant Level Goal (MRDLG)**: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contamination.
- **Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
- **Not Applicable (N/A)** - Information not applicable/not required for that particular regulated contaminant.
- **Non-detects (ND)** - laboratory analysis indicates that the contaminant is not present at the level of detection set for the particular methodology used.
- **Parts per million (ppm) or milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or micrograms per liter (ug/l)** - One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
- **Parts per trillion (ppt) or Nanograms per liter (nanograms/L)** - One part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.
- **Picocuries per liter (pCi/L)** - Picocuries per liter is a measure of the radioactivity in water.
- **Standard units (S.U.)** - standard units is a measurement of that particular regulated contaminant.
- **Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Greenridge Utilities, Inc. routinely monitors for contaminants in your drinking water according to Federal and State laws. Unless otherwise noted, the tables that follow show the results of our monitoring for the period of **January 1st to December 31st, 2017**. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data [e.g., for organic contaminants], though representative, are more than one year old. Data obtained before January 1, 2017 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.*

*Note: The Environmental Protection Agency (EPA) requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table below are the only contaminants detected in your drinking water.*

## Water Quality Test Results - Greenridge Utilities, Inc.

### Lead and Copper

Contaminants (units)	Violation Y/N	Collection Date	90th Percentile of all samples collected	# of sites exceeding the Action Level	MCLG	AL	Likely Source of Contamination
Copper (ppm) (90th percentile)	N	2017	*1.86	8	1.3	1.3	Corrosion of interior plumbing, Erosion of natural deposits

\***Copper** levels are generally site specific because the major contributor to copper in drinking water is the materials used in home plumbing. When water stands in the customer's plumbing that contains copper materials for several hours or more, the copper may dissolve into the drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, may contain higher levels of copper. Flushing fixtures has been found to be an effective means of reducing copper levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. We are investigating treatment options and have constituted a more stringent test cycle to monitor the copper levels until results are below the action level.

**The following is required EPA language** - Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

## Water Quality Test Results Greenridge Utilities, Inc.

### Inorganic Contaminants

Contaminants (units)	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range Low High	MRDLG	MRDL	Likely Source of Contamination
Nitrate (as Nitrogen) (ppm)	2017	N	6	3.15-6.03	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

*\*Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.*

### Stage 1 Disinfection Byproduct Compliance (\*Based on a Running Annual Average)

Disinfection Byproduct	Year Sampled	MCL Violation Y/N	Your Water (highest RAA)	Range Low High	MCLG	MCL	Likely Source of Contamination
HAA5 (ppb) [Total Haloacetic Acids]	2017	N	24	21.45-6.78	N/A	60	By-product of drinking water chlorination
TTHM (ppb) [Total Trihalomethanes]	2017	N	24	22.29-25.5	N/A	80	By-product of drinking water chlorination
Chlorine (ppm)	2017	N	*1.21	0.44-1.53	MRDLG = 4	MRDL = 4	Water additive used to control microbes

## 2017 Water Quality Test Results - Harford County DPW

### Inorganic Contaminants

Contaminants	MCLG	MCL	CL	Range Low	Range High	Violation	Typical Source
Barium (ppm)	2	2	0.2	0.01	0.02	No	Discharge of drilling wastes, Discharge from metal refineries, Erosion of natural deposits.
Fluoride (ppm)	4	4	0.7	0.5	0.7	No	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate as Nitrogen (ppm)	10	10	4.1	0.9	4.1	No	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits.
Chromium (ppb)	100	100	2	ND	2	No	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits.

### Microbiological Contaminants

Turbidity (NTU) TT ≤ 0.3 in 95% of samples in a month. Never > 1.0	N/A	TT	100%	0.02	0.19	No	From soil runoff.
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### Organic Contaminants

Atrazine (ppb)	3	3	0.3	ND	0.3	No	Runoff from herbicide used on row crops.
Ethylene dibromide (ppb)	0	0.05	0.01	ND	0.01	No	Discharge from petroleum refineries.
Simazine (ppb)	4	4	0.1	ND	0.1	No	Herbicide runoff.
Total Organic Carbon (ppm)	N/A	TT	CL by % removal Range 0.9 to 3.0			No	TOC has no health effects, but can provide a medium for formation of disinfection byproducts.

### Radioactive Contaminants

Combined Radium (226 & 228) (pCi/L)	0	5	1.7	1.7	1.7	No	Erosion of natural deposits.
Gross Alpha (pCi/L)	0	15	8.1	8.1	8.1	No	Erosion of natural deposits.

*Note: EPA considers 50 pCi/L to be the level of concern for beta particles*

**Unregulated parameters** are monitored in order to assist EPA in determining where certain contaminants occur and whether additional regulations may be necessary:

Unregulated Contaminants	Avg.	Low	High	Typical Source
Manganese (ppm)	0.01	ND	0.03	Erosion of natural deposits.
Metolachlor (ppb)	ND	ND	0.1	Accidental spills, spraying, leaching from fields via run off.
Perfluoro-n-Octanoic Acid (ppt)	1.6	ND	4.84	Firefighting foams, industrial waste sites.
Sodium (ppm)	27	9	81	Sodium salts used in water treatment; erosion of natural deposits.



**Violations Table - Greenridge Utilities, Inc.****Lead and Copper Rule**

The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

Violation Type	Violation Begin	Violation End	Violation Explanation
Follow-up or Routine Tap M/R (LCR)	10/1/2017	10/20/2017	The sample results taken in September 2017 were to be received by Maryland Department of the Environment by October 10, 2017, but were not received until October 20, 2017. This resulted in a violation of reporting the sample results.

